

CH-DVD 401

DVD-Player



Operation Guide_____

Bedienungsanleitung_____

ENG

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CONTENTS

Safety instructions	5
Introduction	8
Accessories	8
Region code information	8
Compatibility	
Usable disc types	9
Compatibility of PC created discs	
Data transfer rates	
Taking care of player and discs	
Handling of discs	
Cleaning of discs	
Storage of discs	
Discs to avoid	
Cleaning of the DVD player	
Oleaning of the DVD player	
Operation	11
Operation of control panel	11
Operation of rear panel	12
Operation of remote control	13
Preparing the remote control	13
Replacing the battery	13
Using the remote control	
Cautions regarding use of remote control	
Important notes about the battery	
Remote control buttons	15
Audio and video connections	17
Television connections	
Audio/Video connection to a TV with composite video and stereo audio input	
Audio/Video connection to a TV with SCART socket	18
Audio/Video connection to a TV with S-Video and stereo audio input	19
Audio output connections	20
Audio connection to a TV/receiver using the analogue stereo outputs	20
Audio connection to a receiver using the coaxial digital audio output	20
Getting started	າາ
Powering on the unit	
Inserting a disc	
Start playing	
Pausing a disc	
Stop playing	
Removing a disc	
Switching off the power	
Discharle	0.4
Playback	
General playback hintsPlaying a DVD-Video disc	
Playing a DVD+RW/DVD+R disc	
Playing a GVD+RVVIDVD+R discPlaying a (Super) Video CD	
Playing an MPEG-4 disc	
Playing an Audio CD	
Playing an MP3 disc	
Playing a WMA CD	
Playing a Picture CD	
Playing a mixed format disc	28

ENG

CONTENTS

Playing functions	29
Selecting a section of the disc to play	
Selecting a chapter using the DVD menu	
2. Playing from a specific time	29
3. Playing a specific track, picture, title or chapter	30
4. Playing a specific track, picture, title or chapter using the number buttons	30
5. Skipping through chapters, tracks or pictures	
Using the repeat features	
1. Repeating an entire disc	
2. Repeating a track, picture, folder, chapter or title	
3. Repeating a section of a disc (A-B)	
Shuffle play	
Playing a disc at different speeds (fast forward/fast backward)	
Slow play Still the picture frame / Pause a disc	
Playing a disc frame by frame	
Zooming in and out of an image	
Using position markers (Bookmark)	
Displaying disc information	
Displaying disc information	
More audio functions	36
Suspending audio with the "MUTE" button	
Adjusting volumes	36
Changing the audio settings	36
More video functions	
Changing the video quality	37
Special playing functions for DVD-Video discs	37
Using the DVD menu	
Displaying subtitles	
Changing the camera angle	
Special playing functions for Video CD's	39
Using playback control (PBC)	39
Special playing functions for Picture CD's	
Rotation of a picture	39
Creating a playlist	40
Creating a playlist	
Creating a playlist of Video CRear Audio CRe	
Creating a playlist of Video CDs or Audio CDs	
Creating a playlist of MPEG-4 discs, MP3, JPEG, MPEG and WMA files	41
User preferences	42
Notes for moving in the menu	
Language settings	
Video settings	
Audio settings	
General settings	
·	
Troubleshooting	49
- W. d	
Specifications	51
Glossary	52
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SAFETY INSTRUCTIONS

Dear Customer,

May we take this opportunity to thank you for purchasing this DVD player. We strongly recommend that you carefully study the Operating Instructions before attempting to operate the unit and that you note the listed precautions.

Read instructions: All safety/operating instructions should be read before the product is operated.

Keep these instructions: These instructions should be retained for future ref-

Observe all warnings: Adhere to all warnings on the appliance and in the operating instructions.

Follow all instructions: All operating instructions should be followed.

Accessories: Only use accessories specified by the manufacturer.

Power cord protection: To avoid any malfunctions of the unit and to protect yourself against electric shock, fire or personal injury, please observe the followina:

- Hold the plug firmly when connecting or disconnecting the AC power cord.
- Do not connect or disconnect the AC power cord when your hands are wet.
- Keep the AC power cord away from heating appliances.
- Never put any heavy object on the AC power cord.
- Do not attempt to repair or reconstruct the AC power cord in any way.
- Remove dust, dirt, etc. on the plug at regular intervals.
- If the unit has been dropped or otherwise damaged, turn off the power and disconnect the AC power cord.
- If smoke, odours or noises are emitted from the unit, turn off the power and disconnect the AC power cord.



The power cord must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product. Do not damage, break or alter the electric cord. Do not cover the cord under a carpet or similar covering, as you may not be aware of it and may place heavy objects on it or damage it.

Power supply: This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company.

External flexible cords: Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable. Where an all-pole mains switch is used as the disconnect device, the location on the apparatus and the function of the switch shall be described, and the switch shall remain readily operable.

Polarized plugs: Do not defect the safety purpose of the polarized plug. A polarized plug has two blades with one wider than the other. The wide blade is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Overloading: Do not overload AC outlets or extension cords as this may cause fire or electric shock

SAFETY INSTRUCTIONS



Relocating: When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface may cause the product to fall from the cart.





Placing: Please do not place the product on an unstable cart, stand, tripod or table. Placing the product on an unstable base may cause the product to fall resulting in damage to the product. Avoid placing the unit in areas of direct sunlight or heating radiators, high temperature [over 35°C (95°F)] or high humidity (over 90%), excessive dust, vibration, impact or tilted surfaces, as the internal parts may be seriously damaged.



Stacking: Place the unit in a horizontal position and do not place anything heavy on it. Do not place the unit on amplifiers or other equipment, which may become hot.

Heat sources: Keep the product away from heat sources such as radiators, heat registers, stoves or other heat-generating products (including amplifiers).

Ventilation: Do not block any ventilation openings.

Water and moisture: Do not use the product near water, e.g. near a bathtub, washbowl, kitchen sink and laundry tub, in a wet basement or near a swimming pool, etc. When this product is installed beside a window or outdoors, keep it dry, otherwise there is a risk of fire or electric shock.



Keep away from liquids and magnets: The device shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the device. Keep magnetic objects, such as speakers, distant from the DVD player.

Condensation: Moisture may form on the lens immediately after a heater has been turned on, in a steamy or very humid room or if the unit is moved from a cold environment to a warm one. If moisture forms inside this unit, it may not operate properly. In this case, turn off the power and wait about one hour for the moisture to evaporate.

Non-use periods: Unplug this product during lightning storms. When the unit is not used, turn the power off.



Cleaning: Clean only with a dry cloth. Unplug the power cord from the AC outlet before cleaning the product. Do not use any liquid or detergents for cleaning.

Do not touch internal parts: Touching internal parts of this unit is dangerous and may cause serious damage to the unit. Do not attempt to disassemble the unit. There will be no warranty claim in this case. Do not put any foreign object on the disc tray.



Servicing: Do not attempt to service the product yourself. Removing covers may expose you to high voltage and other dangerous conditions. Refer to qualified service personnel for servicing.

Replacement parts: In case the product needs replacement parts, please make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Any use of unauthorized parts may result in fire, electric shock and/or other danger.

SAFETY INSTRUCTIONS

WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR ANNOYING INTERFERENCE, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE AND ONLY USE THE RECOMMENDED ACCESSORIES.





CAUTION RISK OF ELECTRIC SHOCK! DO NOT OPEN!

CAUTION

To reduce the risk of electric shock, do not remove the cover (or back). No user-servicable parts inside. Refer to qualified service personnel for servicing. Only open the device if it is disconnected from the power source - unplug the power cord!



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of not isolated "dangerous voltage" inside the product that may be sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and servicing instructions in the literature accompanying the appliance.

Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

DANGER

Invisible laser radiation when cover is opened and interlock failed or defeated. Avoid direct exposure to beam.

CLASS 1 LASER PRODUCT This DVD player is a class 1 laser product. However, this DVD player uses a visible laser beam, which could cause hazardous radiation exposure, if directed. Be sure to operate this DVD player correctly as instructed.

When this DVD player is plugged into the plug socket, do not place your eyes close to the opening of the disc tray and other openings to look into the inside of this player.

Do not open covers and do no repairs yourself. Refer to qualified personnel for servicing.

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This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Disclaimer of warranty

The information in this manual is subject to change without notice. Cyber Home assume no liability for direct, indirect, accidental or other damages/consequential damages arising from the use or utilisation of the information contained in this manual.

INTRODUCTION

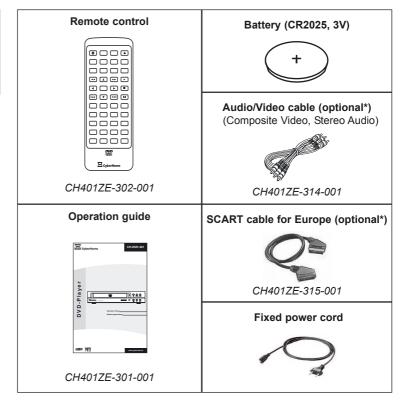
Accessories

Please make sure that the following accessories are in the box when you open it. You can find the order numbers for the accessories below the picture.

Note: Pictures may deviate.

*Note:

Optional means that some devices include the cable in the box, however not all devices. This depends on whether the respective dealer wishes this.



Region code information





This DVD player has been constructed and produced in the way that it adheres to Local Management information, which are recorded on a Digital Versatile Disc (DVD). If the number of the destination area on a DVD does not correspond with the number of the destination area of this DVD player, this device won't be able to play the corresponding disc. The device is set to region code 2.

Region 1 USA, Canada
Region 2 Europe, Middle East, South Africa,
Japan
Region 3 Southeast Asia, Taiwan
Region 4 Central and South America, Mexico, Australia, New Zealand
Region 5 Russian federation, Africa (part),

India, Pakistan

Region 6 China

You can find the region code on the back side of the DVD cover. DVD's must be labelled with "ALL" for all regions or with "2" for region 2, for that they can be played in this device. Should another region be printed on the DVD, it cannot be played in this DVD player. The list on the left side shows the various DVD regions of the world.

INTRODUCTION

Compatibility

Usable disc types

The following discs can be used in your DVD player for playback:





DVD-Video (Digital Versatile Disc)



DVD+RW (Digital Versatile Disc + rewritable)



DVD+R (Digital Versatile Disc + recordable)





DVD-R (DVD-Recordable)





DVD-RW (DVD-Rewritable)



Audio CD (Compact Disc Digital Audio)





Video CD (format 1.x/2.0)



Super Video CD



CD-R (CD-Recordable) with audio/MP3/JPEG contents



CD-RW (CD-Rewritable) with audio/MP3/JPEG contents

Kodak Picture-CD

MPEG-4 discs (DivX 4.12, 5.x, XviD)

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Compatibility of PC created discs

When recording a disc with a PC, even if it is recorded in a compatible format as listed above, there may be cases in which the disc cannot be played in this device due to the application software setting used to create the disc. In this case, please contact the software publisher for more detailed information.

Note: Don't load any exceptional discs in the unit, as this will cause null playback or other problems (also with copy-protected Audio CDs).

Data transfer rates

The maximum speed for playing CDs is 4x. The corresponding data transfer rate is 600 KB/sec. The maximum speed for playing DVDs is 2x with a data transfer rate of 2700 KB/sec.

INTRODUCTION







Taking care of player and discs

Handling of discs

- Please hold the disc by gripping the rim or by placing the index finger in the central hole. Never touch the signal surface, which is shiny. This applies to both sides of double sided discs.
- Never add labels or adhesive tapes on the discs and do not scratch or damage the discs.

Cleaning of discs

- Finger prints or stains on the surface of the disc can cause signal missing.
 Depending on the degree of stain, the reflected luminosity from the signal surface may be weakened, resulting in a poorer picture quality. Therefore, please use a soft cloth and wipe in a radiating manner from the centre to the outer rims when cleaning the disc.
- If the surface of your disc is very dirty, please wipe the disc with a moist cloth, finally use a dry soft cloth to remove all the water stains.
- Never use electrostatic prevention products as well as solutions which contain benzene, thinner or any other vaporizing substances, as they may damage the disc surface.

Storage of discs

- To prevent discs from getting bent or deformed, they should be vertically kept in the disc storage case.
- To prevent damages, avoid placing them in a car, which may contact direct sunlight. Also avoid leaving discs in excessively cold or humid environments.
- For more information refer to the instructions that come with discs.

Discs to avoid

Please only use conventional, fully circular discs in this DVD player. It is not recommended to use warped, cracked, chipped or otherwise damaged discs in this device.

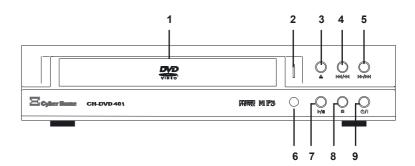
Disc accessories

Do not use any disc accessory to improve the audio quality, disc protective solutions or lens cleaner. These products may cause problems.

Cleaning of the DVD player

The control panel and the case of the player will only require occasional wiping with a soft cloth. Areas with stubborn stains can be cleaned with a soft cloth dipped in a neutral detergent. To prevent damaging the player, never use vaporizing solutions.

Operation of control panel



1. DISC TRAY: For inserting discs.

2. STANDBY LED: If the device is in Standby mode, the LED will light red. If

the Player is in operation, the LED will light green.

3. ≜ : Opens or closes the disc tray.

4. I◀ / ◀ : Press this button shortly to skip to the previous track,

chapter or title. Hold down this button 3 seconds for fast

backward search while playing (2/4/8/16/32x).

5. ▶▶ / ▶▶I: Hold down this button 3 seconds for fast forward search

while playing (2/4/8/16/32x). Press this button shortly to

skip to the next track, chapter or title.

6. RC SENSOR: Remote control sensor window. Use the remote control

by aiming it at the remote control sensor window to per-

form functions.

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7. ► / II : Press this button to start the playback of a disc. During

playback, this is used to pause a disc. Press this button

again to resume normal playback.

8. ■: Press once to stop playback of a disc and save the loca-

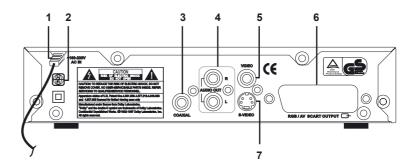
tion of a stop point. The disc can be played back from the stop point by pressing "▶". Press this button two times

to enter stop mode.

9. \circ /l: Switches the device on or off. When pressing this button

you can only go into Standby mode.

Operation of rear panel



1. AC IN: This device has a fixed power cord. Plug the other end

of the fixed power cord into the wall socket.

2. REGION CODE: Indicates that the device is set to DVD region code "2".

3. COAXIAL: Digital coaxial audio output for connection to a digital

audio device (amplifier/receiver). Please note that the amplifier/receiver has to be compatible to Dolby Digital, MPEG and/or PCM (for more information please refer to

the manual of your amplifier/receiver).

4. AUDIO OUT L/R: Analogue 2-channel audio outputs (white/red socket) for

connection to a television, AV receiver, beamer or stereo

system.

5. VIDEO: Composite video output (yellow socket) for connecting to

a TV or AV receiver with a video input (CVBS, compos-

ite video) by an audio/video cable.

6. RGB/SCART: For connection to a television or monitor that is compat-

ible with this kind of connection by means of a 21-pin SCART cable. This connection enables the output of

audio and video signals.

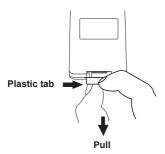
7. **S-VIDEO**: S-Video output for connecting to a TV or AV receiver with

S-Video input by an S-Video cable. The S-Video output can be used instead of the video output. By this, a higher video quality can be reached than with composite

video.

Operation of remote control

Remote control



Preparing the remote control

The DVD player comes with a remote control. Simply pull out the plastic tab in the remote control to activate the battery. The plastic tab - which covers the battery terminals - extends the life of the battery.

Note: Please note that some models will not include this plastic tab. If this is the case, please refer to the next section for battery installation.

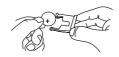
Replacing the battery

If the remote control only operates when you get closer to the device, it means that the battery has been used up. Please replace the battery with a new Lithium battery (CR2025, 3V). To replace the remote control's battery, the battery holder must be removed. Be sure to take note of the polarity marking on the battery. The " + " side must face the bottom of the remote (the side without any buttons).

Remote control bottom

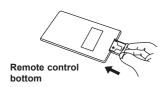


 Use your thumbnail to slide the clip on the battery holder to the right side and pull out the battery holder simultaneously in order to remove the battery compartment.

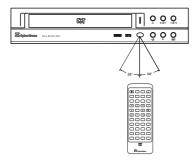


2. Insert a new battery into the battery holder. Make sure that the positive side (marked on the battery as "+") is facing upwards.

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3. Reinstall the battery holder into the remote control to complete the battery installation.



Using the remote control

You can use the enclosed wireless remote control to control this device. When using the remote control, please aim at the device's remote control sensor, located on the front of the device. A 30 degree angle is recommended for best operation.

Note:

- Objects between the remote control and the sensor window may prevent proper operation.
- · Similar remote controls could interfere with the function of the player.
- Make sure not to store the remote control upside down or with any objects pressing on the buttons this could drain the batteries.

Cautions regarding use of remote control

- Please do not expose the remote control to shock and liquids and do not place
 it in areas with high humidity. Do not install or place the remote control under
 direct sunlight, as the heat may cause deformation of the unit.
- When the remote sensor window is exposed to direct sunlight, it may not work
 properly. If so, please operate the remote control closer to the remote sensor
 window or change the angle of the lighting or device.

Important notes about the battery

- If the unit is not used for a longer period of time, we recommend you to remove the battery.
- Please do not use batteries other than specified. Improper use of batteries can result in a leakage of chemicals and/or explosion.
- In case of any leakage of the battery, dispose of the battery right away and avoid touching the chemical discharge. Make sure to clean the remote control's battery compartment before installing a new battery.

Remote control buttons

POWER (b) Switch on/off: To switch the device on or off (only stand-

by mode).

DISPLAY Screen display for indicating the disc and time informa-

tion.

SETUP OSD menu: To call up or cancel the main menu in Stop

mode. To change the sharpness and brightness settings

while playing.

OPEN/CLOSE ▲ To open or close the disc tray.

TITLE For DVDs, this displays the DVD menu.

MENU "PBC" To enter the menu of DVD discs or to select the PBC

function for VCD discs.

GOTO Used for the direct selection of a track, title, chapter or

time for intended play. Follow with the corresponding

number button.

PROGRAM This can be used to set up a playlist.

ANGLE Changes the camera angle depending on the disc con-

tent (only supported on DVDs).

SUBTITLE For DVDs, this can be used to display subtitles and

select the language to use.

AUDIO Interchanges the audio settings depending on the disc

content (on DVD, VCD and MPEG-4 discs).

MUTE To turn off the sound. Press again to turn sound on

again.

Fast backward: Fast backward search while playing

(2/4/8/16/32x). Not possible with JPEG and WMA files.

△, **▼**, **◄**, **▶ Direction buttons:** Up, down, left, right.

Fast forward: Fast forward search while playing

(2/4/8/16/32x). Not possible with JPEG and WMA files.

Play: Press this button to start the playback of a disc.

ENTER Select: To select options in menus.

Stop: Stops the playback, but holds the resume location.

Enters Stop mode after pressing the button two times.

Select previous title: Press this button to skip to the

previous track, chapter or title.

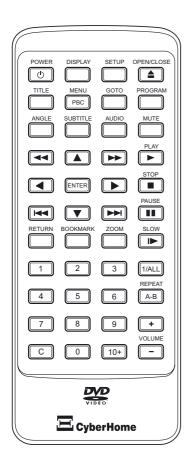
Select next title: Press this button shortly to skip to the

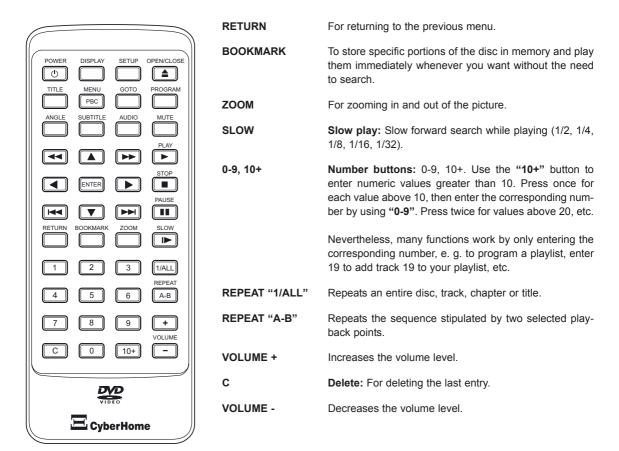
next track, chapter or title.

II Pause/Stepwise: This is used to pause a disc. Press

again to resume playback (on Audio CDs) or to advance frame by frame on a still image (DVD-Video, MPEG-4

discs).





Television connections

In order to use your DVD player, you will need to make a video connection to your TV. The capabilities of your TV and the cables you have on hand will determine the connections you can use. There are three possible connection types:

- Composite video The most widely used connection. An audio/video cable for composite video is required.
- RGB (over SCART) Audio and video connection which enables an optimal picture quality. This connection possibility requires a SCART cable (optionally included in your accessory).
- S-Video A higher quality connection that requires a special S-Video cable and a S-Video capable TV.

In detail:

Audio/Video connection to a TV with composite video and stereo audio input



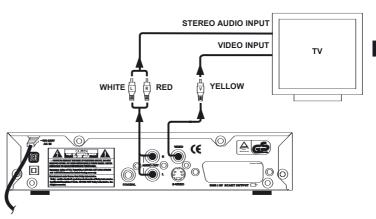
If your TV has only a single Video input jack, typically a yellow-coloured plug, you will use the composite video output of your DVD player for the video connection. For the audio connection you can use the red and white stereo audio in connectors of your TV.

put jack

Have the following cables ready:



- 1. Audio/Video cable (optionally supplied; red, white and yellow plug)
- 2. Fixed power cord



- Use the audio/video cable optionally included in your accessory to connect the video output of your DVD player to the video input of your TV. This is normally a yellow-coloured connector that matches the video output on the back of this unit.
- If you wish to hear sound through the TV, connect the stereo audio outputs of your DVD player to the matching inputs of your TV using the red and white connectors on the optionally supplied audio/video cable.

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- As this device has a fixed power cord, only plug the other end of the fixed power cord into the wall socket.
- 4. Turn on the TV and the DVD player.
- Select the corresponding video input on your TV. For this please refer to the user manual of your TV. You should now see the DVD player's splash screen on your TV.

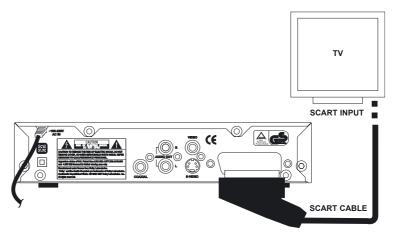
Audio/Video connection to a TV with SCART socket

If your TV has a SCART socket, you can optionally connect your device with the TV over the SCART socket. The advantage is here an optimal picture quality.

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Have the following cables ready:

- 1. SCART cable (optionally supplied)
- 2. Fixed power cord

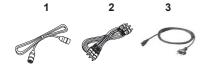


- Use a completely connected SCART cable, which is included in your accessory (optional), to connect the SCART output of your DVD player to the SCART socket of your TV.
- 2. As this device has a fixed power cord, only plug the other end of the fixed power cord into the wall socket.
- 3. Turn on the TV and the DVD player.
- 4. If the TV offers the possibility to choose manually between RGB and CVBS, you should set your TV to RGB in order to achieve a better picture quality. If the DVD player is connected with the TV over the SCART cable, the TV automatically switches to the DVD mode when you turn on the player (if the TV supports this function).

Audio/Video connection to a TV with S-Video and stereo audio input

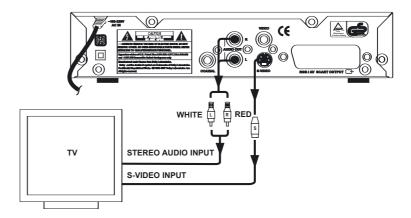


If your TV has an S-Video input, it is recommended that you use this Video connection. The S-Video connector is distinguishable by its 4 pins, as shown on the left side. S-Video separates brightness and colour signals, resulting in a higher video quality than standard composite video. For the audio connection you can use the red and white stereo audio in connectors of your TV.



Have the following cables ready:

- 1. S-Video cable (not supplied)
- 2. Audio/Video cable (optionally supplied; red and white plug)
- 3. Fixed power cord



 Use a special S-Video cable (not included in your accessory) to connect the S-Video output of your DVD player to the S-Video input of your TV.

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- If you wish to hear sound through the TV, connect the stereo audio outputs of your DVD player to the matching inputs of your TV using the red and white connectors on the audio/video cable.
- 3. As this device has a fixed power cord, only plug the other end of the fixed power cord into the wall socket.
- 4. Turn on the TV and the DVD player.
- Select the S-Video input on your TV. For this please refer to the user manual of your TV. You should now see the DVD player's splash screen on your TV.

Audio output connections

This unit features different audio line outputs for connection to a receiver or TV. There are two possible connection types:

- Analog stereo outputs
- 2 Coaxial digital output

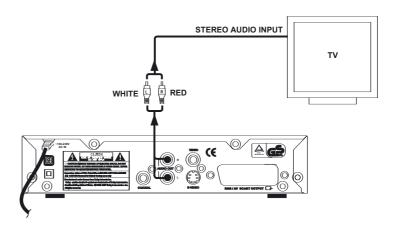
• Audio connection to a TV/receiver using the analogue stereo outputs

Have the following cable ready:



1. Audio/Video cable (optionally supplied; red and white plug)

Connect the stereo audio outputs of your DVD player to the matching inputs of your TV or receiver using the red and white connectors on the audio/video cable.



Audio connection to a receiver using the coaxial digital audio output

At the back of the DVD player, there is a digital audio output socket "COAXI-AL" for a coaxial cable.

This can be used to connect the following:

- an A/V receiver or an A/V amplifier with a digital multi-channel sound decoder (MPEG 2, Dolby Digital)
- a receiver with two channel digital stereo (PCM)

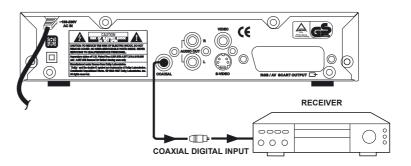
What is digital multi-channel sound?

Digital multi-channel sound offers you a maximum of sound quality. You need a multi-channel A/V receiver or amplifier that supports at least one of the audio formats of the DVD player (MPEG 2 and Dolby Digital). For the formats that your receiver supports, refer to the manual of the receiver.

1 Have the following cable ready:



1. Coaxial cable (not supplied)



Connect the coaxial digital output with the corresponding input on the AV receiver by means of a coaxial cable (not included in your accessory). The coaxial digital audio output sends an encoded "RAW" digital audio signal to your receiver for decoding. Please note that this connection is only possible if your digital receiver is compatible to Dolby Digital, MPEG and/or PCM.

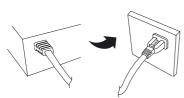
A loud distorted noise comes from your loudspeakers:

In this case the receiver is not suitable for the digital audio format of the DVD player. Playback with 6 channel digital surround sound is only possible, if the receiver has a digital multi-channel sound decoder.

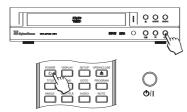
ENG

GETTING STARTED

1.



2.



Powering on the unit

Only after all connections are complete, connect the power cord and power on the unit.

- 1. Plug the standard electrical plug into a wall socket or power strip.
- The unit is now in Standby mode. Press the button "O/I" on the front panel
 or the button "POWER" on your remote control to power the device on.
 Once the unit has been turned on, the unit will always be either ON or in
 STANDBY MODE.

Notes on power states

There are three power states for this unit:

- OFF The unit is not plugged into a wall outlet. The unit draws no power.
- STANDBY The unit is plugged into a wall outlet. The unit has not been taken out of standby by pressing either the button "O/I" on the front panel or the button "POWER" on the remote control. The unit draws a slight amount of power to enable the remote control receiving circuit. The standby LED is glowing red. The player will automatically enter Standby mode after 20 minutes of inactivity.
- ON The unit is plugged into wall outlet and either the button "OII" on the front panel or the button "POWER" on the remote control has been pressed. The unit is ready to use. The LED is now glowing green.
- 3. When the screen display indicates "Loading...", the disc is read.
- 4. If no disc is inserted, the screen display will indicate "No disc".

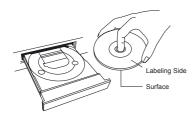
Inserting a disc

- Press the Open/Close button "≜" on the front panel or on the remote control to open the tray. The screen display will indicate "Open".
- Carefully place the disc in the tray with the label facing up. Be careful not to touch the playing surface. Hold the disc by the sides and with your forefinger through the hole in the middle and insert gently into the tray.

How to insert a double-sided DVD?

Double-sided discs do not have labelling over the whole surface. The labelling for each side is in the centre of the disc. To play a side its label must be facing up.

- 3. Press the button "▶" or "♠" on the front of the device or on the remote control to close the tray. The screen display shows "Close" and then "Loading...". The information on the disc is read.
- 4. The inserted disc type is indicated on the screen. If the disc supports the Auto Play function, playback will begin automatically.



GETTING STARTED

Start playing

- 1. Press the Play button "▶" to start playing the disc.
- If the disc inserted is a DVD disc, the title menu can be selected for playing or various special playing functions can be selected depending on the content of the disc.
- If the disc inserted is a VCD disc with PBC function, the menu will appear on the screen and the operation can be done according to the instructions in the menu or the "MENU" button can be pressed to remove the PBC function and to play directly.
- If the VCD disc does not have PBC function or if the disc inserted is an ordinary music CD, the entire disc will be played directly.

Pausing a disc

- With DVDs, Video CDs and MPEG-4 discs, you can pause the playback on a still frame by pressing the Pause button "II".
- Pressing the Pause button while playing Audio CDs, this will mute the sound and hold the play position.
- 3. Press this button again to resume normal playback.

Stop playing

- 1. Press the Stop button "■" to stop the playback of the disc.
- After the Stop button has been pressed, the CyberHome splash screen will be displayed on the screen with Audio CDs, DVDs and Video CDs. The stop point is now saved and you can resume playback by pressing the Play button "▶".

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- Pressing the Stop key "
 "twice will reset the play position to the beginning of the disc.
- After 20 minutes of inactivity the player will automatically enter Standby mode.

Removing a disc

Press the Open/Close button "\(\Delta\)" on the front panel or on the remote control. The screen display indicates "\(\text{OPEN}\)", the tray opens and you can remove the disc.

Switching off the power

After pressing the button "**OVER**" on the front panel or the button "**POWER**" on your remote control, the device will go into standby mode. In order to switch the device completely off, please remove the power cord from the wall socket.

General playback hints

This DVD player will play the following discs:

- DVD-Video
- Video CD
- · Super Video CD
- MPEG-4 discs
- DVD+RW (video mode/ISO 9660, finalised)
- DVD+R (video mode / ISO 9660, finalised)
- DVD-RW (video mode/ISO 9660, finalised)
- DVD-R (video mode / ISO 9660, finalised)
- · CD-R
- · CD-RW
- Audio CD
- MP3
- Kodak Picture CD

You can operate the DVD player using the remote control or the buttons on the front panel of the DVD player.

Problems:

" Ø " will be displayed on the screen:

Some DVD discs can be manufactured so that certain steps are required before the disc can be played, or so that only limited operation is possible during playback. When an " ②" appears on the screen, the selected feature is not possible.

The screen is showing a region code information:

- Since DVD films are normally not released in all parts of the world at the same time, all DVD players have a specific region code. Discs can be given an optional region code. If the region codes differ between the player and the disc, playback is not possible.
- · You can find the region code on the back of the device.
- The region code does not apply to recordable DVD discs.

Playing a DVD-Video disc

- 1. If playback does not start automatically, press the Play button "▶".
- To stop the disc, press the Stop button "■" on the remote control or on the front of the device.
- To eject the disc, press the Open/Close button "≜" on the remote control or on the front of the device.

DVD menu:

When playing a DVD, a menu may appear. If the titles and chapters are numbered, press a number button on the remote control. You can also use the direction buttons "▲", "▼", "◄" and "▶" to select a menu item and confirm with the button "ENTER".

You can also access the menu using the button "MENU" or "TITLE" on the remote control.

Playing a DVD+RW/DVD+R disc

- If playback does not start automatically, select the title you want to play using the direction button "▲" or "▼".
- 2. Press the Play button "▶" or the button "ENTER" to start the playback.
- To stop the disc, press the Stop button "■" on the remote control or on the front of the device.
- 4. To eject the disc, press the Open/Close button "≜" on the remote control or on the front of the device.

Playing a (Super) Video CD

(Super) Video CDs may be equipped with PBC (Playback Control). This means that special playback functions (menus) can be selected directly. The Video CD must be PBC-compatible (see CD packaging).

- Insert a (Super) Video CD. If playback does not start automatically, press the Play button "▶" on the remote control or on the front of the DVD player.
- If a menu appears on the screen, use the number buttons "0-9" to select the menu option you want. If the PBC menu contains a title list, the desired title can be chosen directly.
- 3. Stop playback using the Stop button "■".

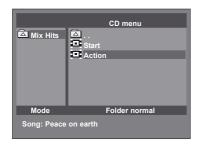
Playing an MPEG-4 disc

You can also use your DVD player to play discs with MPEG-4 multimedia content. MPEG-4 is the latest compression method standardized by MPEG group with greater compression capabilities.

• MPEG-4 video decoding as defined by ISO 14496-2 standard:

E

- Simple Profile (SP)
- Advanced Simple Profile (ASP) with GMC (Global Motion Compensation, 1WP) and Q-Pel (Quarter Pixel) interpolation
- Supported DivX versions:
- 4.12 (MPEG-4 SP)
- 5.x (MPEG-4 ASP)
- Decoding of XviD
- · Resolution:
- Up to 720 x 480 @ 30 frames per second
- Up to 720 x 576 @ 25 frames per second
- File formats:
 - *.avi, *.div, *.divx (used by DivX and XviD)
- Insert an MPEG-4 disc. On the screen will appear the menu as shown on the left side. Select the required folder using the direction button "▲" or "▼" and press "ENTER" to confirm your selection. Select now the track you want to play.
- 2. Press the Play button "▶" or the button "ENTER" to start the playback.
- 3. Stop playback using the Stop button "■".



PLAYBACK

CD-DA

Track 2/4

00:01:23 00:02:19

Playing an Audio CD

You can also use your DVD player to play Audio CDs.

 Insert an Audio CD. Playback starts usually automatically. If playback does not start automatically, press the Play button "▶" on the remote control or on the front of the DVD player.

Note for Audio CD display:

If the TV is on, the current track number, the available tracks on the disc and the time information (elapsed and remaining time of the track) will be shown on the TV screen (see illustration on the left side). You can also switch this display off by pressing the "DISPLAY" button on your remote control.

Stop playback using the Stop button "■". The number of tracks and the total time are displayed.

Additional playing functions:

- With the button "I◄ or "▶▶I" you can select the previous or next track.
- When playing an Audio CD, you can also use the repeat functions. For this
 please use the buttons "REPEAT A-B" and "REPEAT 1/ALL".

Playing an MP3 disc

MP3 (MPEG1 Audio Layer-3) files are highly compressed music files. Using this technology the data volume can be compressed by a factor of 10, e. g. this means it is possible to record 10 hours music in CD quality on a single CD-ROM.

When creating MP3 discs, please note the following:

- · File system: ISO9660, Joliet
- Formats: *.mp3
- File names: maximum 64 ASCII characters (Joliet)
- Maximum of 500 folders, 1500 files
- · Support of all standard bitrates
- · ID3 Tag available
- Insert an MP3 disc. If playback does not start automatically, select the required folder using the direction button "▲" or "▼" and press "ENTER" to confirm your selection. Select now the track you want to play.

Note:

To return to the folder selection, please press the direction button "◄".

Note for MP3 display:

If the TV is on, the MP3 screen appears automatically (see illustration on the left side). The current selected track and folder will be highlighted on the TV screen. If included in the so-called ID3 tag, more information will be displayed on the track, year, artist, album and genre during playback of a track.



PLAYBACK

- 2. Press the Play button "▶" or the button "ENTER" to start the playback.
- 3. Stop playback using the Stop button "■".

Additional playing functions:

- With the button "I◄◄" or "▶▶I" you can select the previous or next track.
- When playing an MP3 disc, you can also use the repeat function. For this please use the button "REPEAT 1/ALL". Repeat A-B is not possible.

Playing a WMA CD

WMA = Windows Media Audio. A streaming media format for audio and video developped by Microsoft.

- 1. Insert a WMA CD. If playback does not start automatically, select the required folder using the direction button "▲" or "▼" and press "ENTER" to confirm your selection. Select now the WMA file you want to play. If the TV is on, there will be shown the same display as for MP3 discs (see illustration in section "Playing an MP3 disc").
- 2. Press the Play button "▶" or the button "ENTER" to start the playback.
- Stop playback using the Stop button "■".



You can also use your DVD player to play Picture CDs, e. g. Kodak Picture CDs or CD-R/RW discs with JPEG files.

Insert a Picture CD. If playback does not start automatically, select the required folder using the direction button "▲" or "▼" and press "ENTER" to confirm your selection. Select now the JPEG file you want to play and press the Play button "▶" to show the picture on the screen.

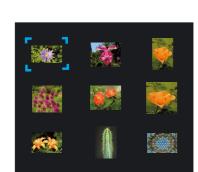
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2. As the disc is playing, pressing the Stop button "■" will display the picture album. This consists of a small image for each of the picture files found on the disc, nine pictures can be shown at one time (see the figure on the left side). Navigate to a picture by pressing the direction keys.

Note:

With the button "I◄ or "▶I" the previous or next nine pictures can be shown.

- 3. With the Play button "▶" you can resume playback.
- Stop playback using the button "MENU" on the remote control. If the picture album is displayed, press the Stop button "■" to return to the on-screen menu.



PLAYBACK



Playing a mixed format disc

You can also use a mixed format disc in this DVD player. Mixed format discs contain both audio and still picture files, e. g. a Picture CD that contains additionally MPEG-4, MP3, MPEG and/or WMA files.

- 1. Insert a mixed format disc. The player will launch an on-screen menu that lets you easily select and play MPEG-4, MP3, JPEG, MPEG and WMA files stored on CD-R or CD-RW discs. The menu gives you several options for playback, including repeat and shuffle modes. MPEG-4 files have to be saved with the extension ".avi", ".div" oder ".divx", MP3 files with the extension ".mp3" (e. g. "Song.mp3"), JPEG pictures with the ".jpg" extension, MPEG files with the ".mpeg" extension and WMA files with ".wma".
- Select the required folder using the direction button "▲" or "▼" and press
 "ENTER" to confirm your selection. The files of the corresponding folder will
 now be shown on the screen. Select now the file you want to play by pressing again the up and down direction keys. Press then "ENTER" or the Play
 button "▶" to start playback.
- Stop playback using the Stop button "■" (with MPEG-4, MP3, WMA and MPEG files) or the button "MENU" (with JPEG files) on the remote control.

Note:

CD-R/RW discs containing MP3, JPEG, MPEG or WMA files should be in ISO 9660, Mode 1, Closed Session format for best compatibility.

Selecting a section of the disc to play

If you do not want to play the entire disc, you can select a section to play using one of the following options:

Note:

When completing numerical fields as described in that section, you can use the button "ENTER" on your remote control to automatically complete the field. For example, when playing a disc if you want to move to 00:01:00, entering "100" followed by "ENTER" completes the remaining fields with 0.

1. Selecting a chapter using the DVD menu

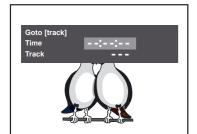
Some DVDs are provided with a menu that, among other options, allows you to select a specific chapter to play.

- DVD menus will sometimes be displayed automatically when starting playback. Others only appear when pressing the button "MENU" on your remote control. If the disc does not have a menu, the symbol "O" will be displayed on the screen.
- Use the direction buttons to highlight the chapters option in the menu. Press the button "ENTER" to display the available chapters.
- Use the direction buttons to highlight the chapter that you want to play and press "ENTER". The menu is closed and the chapter is immediately played.

2. Playing from a specific time

This function is available on Audio CDs, DVDs, Video CDs and MPEG-4 discs. You can jump directly to a specified time. If for example the length of a track is 4 minutes and 37 seconds, you can start playback from the 4th minute so that you only listen to the latest 37 seconds.

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- During playback, press the "GOTO" button on the remote control. A menu will appear on the screen (see figure on the left side).
- When using this feature with Audio CDs and Video CDs, press "GOTO" again to display the second level of the Goto menu. At the first level you can go to a specific time in the track. At the second level you can go to a specific time on the disc.
- 3. Use the number buttons "0-9" on your remote control to enter the time that you want to move to in the format hh:mm:ss. When entering the wrong number, please press the button "C" on your remote control to delete your input. When you have finished entering the time, press the button "ENTER" to confirm. The menu is closed and the disc or track is played from the time entered.

3. Playing a specific track, picture, title or chapter

If there are more than one track, picture, title or chapter available on a disc, you can move to a special track on audio discs, Video CDs and MPEG-4 discs, a special picture on Picture CDs or a special title and chapter on DVDs that support this feature.

- Press the "GOTO" button on the remote control. A menu will appear on the screen (see figure on the left side).
- Use the direction buttons to move to the field you wish to use: Track (on audio discs, Video CDs, MPEG-4 discs and Picture CDs), Title or Chapter (on DVDs).
- 3. Use the number buttons "0-9" on your remote control to enter the track, picture, title or chapter you want to jump to. When entering the wrong number, please press the button "C" on your remote control to delete your input. When you have finished entering the numbers required, press the button "ENTER" to confirm. The menu is closed and the selected track, picture, title or chapter is played.

4. Playing a specific track, picture, title or chapter using the number buttons

When playing a DVD, Video CD, MPEG-4 disc, Audio CD, MP3 or JPEG disc, you can jump directly to a chapter, track or picture.

- 1. Press the number buttons that correspond to the chapter, track or picture you wish to play, e.g. to play track number 1, press 1 or to play track number 11, press the button "+10" and 1 on your remote control. To play a track above 20, press the button "+10" two times, and so on.
- 2. In Stop mode of DVDs, pressing the number buttons that correspond to the title you wish to play will jump directly to the required title.

Note:

- Using the number buttons with Video CDs may require the PBC function to be disabled. To disable PBC, press the "PBC" button.
- With MP3, JPEG, MPEG and WMA files you do not need to use the button "+10". Only enter the corresponding number using "0-9".

5. Skipping through chapters, tracks or pictures

While you are playing a disc you can skip to the next or previous chapter (on DVDs), track (on Audio CDs, MP3 discs, Video CDs, MPEG-4 discs) or picture (on Picture CDs). This is carried out using the buttons "▶▶I" and "I◄◄" on your remote control

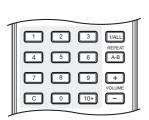
- To skip to the beginning of the next chapter, track or picture, press the button "▶▶I".
- To skip to the beginning of the previous chapter, track or picture, press the button "I◄4".



You can also use the buttons " $I \triangleleft I$ " and " $I \triangleright I$ " on the front panel of the device.



*DVD disc display





Using the repeat features¹

The repeat feature allows you to repeat a section of a disc, once it has finished playing. According to the disc type, an entire disc, a single track, a single folder, a single chapter, a single title or a section of the disc between two selected points can be repeated.

1. Repeating an entire disc²

This function is available on Video CDs, MPEG-4 discs, Audio CDs, MP3 and JPEG files.

- 1. To repeat an entire disc, press the button "REPEAT 1/ALL" on your remote control until "Repeat all" is displayed in the top left corner of the screen.
- 2. To stop the disc repeating, press again the button "REPEAT 1/ALL" until "Off" or "Folder normal" is displayed on the screen.

2. Repeating a track, picture, folder, chapter or title²

1. Play the track, folder, picture, chapter or title that you want to repeat. Press the button "REPEAT 1/ALL" on your remote control repeatedly until the required repeat mode is displayed in the top left corner of the screen. You can choose from the following options:

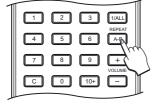
"Repeat single" (for Video CDs, MPEG-4 discs, Audio CDs, MP3, JPEG, MPEG and WMA files) "Repeat folder" (for MPEG-4 discs, MP3, JPEG, MPEG and WMA files) "Repeat title" (for DVDs) "Repeat chapter" (for DVDs)

2. When the disc reaches the end of the selected track, picture, folder, chapter or title, it will start playing it again. To stop the repeat, press again the button "REPEAT 1/ALL" until "Off", "Repeat off" or "Folder normal" is displayed on the screen.

3. Repeating a section of a disc (A-B)

This function is available on DVDs, Video CDs, MPEG-4 discs and Audio CDs. A section of a disc can be repeated by defining two points (A->B). This feature allows you to select where you want the repeat to start and then the section where you want the repeat to stop.

1. As the disc is playing, press the button "REPEAT A-B" at the beginning of the section that you want to repeat. "Repeat A-" will be displayed in the top left corner of the screen.



- 1. The availability of these features is dependent on the current context (for example, the mode and the type of disc) and whether they are permitted by
- 2. Using this function with Video CDs may require the PBC function to be disabled. To disable PBC, press the "PBC" button.

- Press the button "REPEAT A-B" again when the end of the section that you want to repeat is reached. "Repeat A-B" will be displayed in the top left corner of the screen.
- 3. The section is continually repeated now. To stop the repeat of the section, press again the button "REPEAT A-B" until "Repeat off" is displayed.

Note:

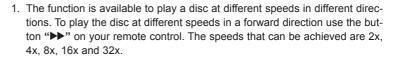
You can also stop the section repeating by carrying out any other action that moves outside the section. For example, selecting to play a specific track, see page 30.

Shuffle play

When playing an audio disc or MPEG-4 disc, you can also play the disc in shuffle mode.

- 1. Please press the button "REPEAT 1/ALL" on your remote control until "Shuffle" appears on the screen.
- To stop the shuffle play, press again the button "REPEAT 1/ALL" until "Off", "Repeat off" or "Folder normal" is displayed on the screen.

Playing a disc at different speeds (fast forward/fast back ward)

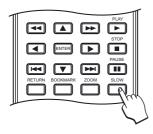


- To play the disc at different speeds in reverse use the button "◄<" on your remote control. The speeds that can be achieved in reverse are 2x, 4x, 8x, 16x and 32x.
- To change from playing the disc at a different speed to normal speed, press the Play button "▶".

Notes:

- This function is not available for JPEG pictures and WMA files.
- Fast forward/reverse scanning will only work during disc playback, not when the disc is stopped.





Slow play

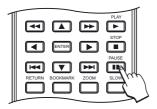
When a DVD, Video CD or MPEG-4 disc is playing, press the Slow button " I▶" on your remote control to slow down the current speed of play.

- 1. Whenever the Slow button is pressed once, the speed of play will slow down by one step, from 1/2>1/4>1/8>1/16>1/32. Pressing the Slow key again will return the play to normal speed and so on repeat circulating.
- Pressing the Play button "▶" will immediately return to the normal speed of play.

Problem:

No sound during slow play:

During slow play, the sound will be muted. This is not a fault of your device.



Still the picture frame / Pause a disc

- Pressing the Pause button "II" during play will still the picture frame/pause the disc.
- 2. To continue normal play, press the Play button "▶".

Playing a disc frame by frame

- When a DVD, Video CD or MPEG-4 disc is playing, press the Pause button "II" to pause it.
- 2. Press the Pause button "II" repeatedly to step from frame to frame.
- 3. To continue normal play, press the Play button "▶".

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Zooming in and out of an image

The Zoom feature allows you to enlarge the video image and pan through the enlarged image. Zooming in and out can be carried out on a DVD, Video CD, MPEG-4 disc or Picture CD whether it is playing or paused.

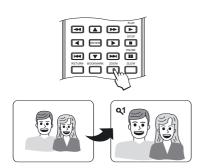
- 1. To use the zoom facility, press the button "ZOOM" on your remote control.
- 2. When used with DVDs, Video CDs or MPEG-4 discs, " Q1" is displayed in the top left corner of the screen and you are zoomed in. Another pressing of the key will zoom further into the picture (Q2, Q3, Q4).



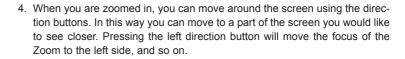
Q1 mode:

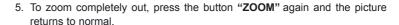
In Zoom 1 mode, a 4:3 image is displayed on the 16:9 screen with the top and bottom chopped off (vertically extension, zoom factor = 4/3).

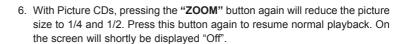
3. When used with Picture CDs, " Q 4/3" is displayed in the top left corner of the screen and you are zoomed in. Another pressing of the key will zoom further into the picture (Q2, Q3, Q4).

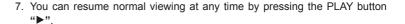














Using position markers (Bookmark)

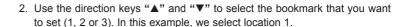
The bookmark feature allows you to set markers on the disc. When you select a previously set marker then, the disc will skip to the place marked. For example, you may want to mark your favorite scenes in a DVD movie to playback after the movie is finished. You can store up to 3 bookmark locations, which are cleared when the disc is removed. To set a marker, please follow these steps:

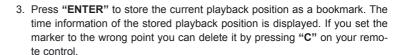
1. As a DVD, Video CD or CD is playing, press the button "BOOKMARK" on your remote control. A menu will be displayed on the screen.



Note:

You may want to press the Pause button "II" first to freeze playback at the exact time you wish to set the marker.





- To jump to a marker that you have set, highlight it and press "ENTER" to play it.
- 5. To exit the bookmark menu, please press the "BOOKMARK" key again.





Displaying disc information

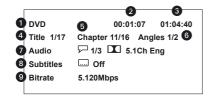
Various disc information can be displayed on-screen by pressing the button "DISPLAY" on the remote control. In this way you will have quick access to playback information and important functions.



- Press the "DISPLAY" button once while a disc is playing. On the screen will be shown the elapsed playback time of the current disc, track or chapter, followed by the remaining time.
 - Elapsed time: Displays the time of the disc, chapter or track already played.
 - Remaining time: Displays how much time remains for the current disc, chapter or track.
- Press the "DISPLAY" button a second time to access more information about the playback session.

Note:

When playing an MPEG-4 disc you only need to press the "DISPLAY" button once to access all information.



Display menu for DVDs

With DVD discs, the following information is displayed. Other disc types will show fewer options.

- Disc type: Displays the type of disc inserted: DVD, VCD, SVCD, CD-DA.
- **2** Elapsed time: Displays the time of the disc, chapter or track already played.
- Remaining time: Displays how much time remains for the current disc, chapter or track.
- 4 Title: Indicates the current title and the available titles on the disc.
- 6 Chapter: Indicates the current chapter and the available chapters on the disc.

ENG

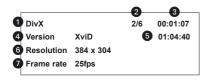
- **6** Angles: Indicates the currently selected camera angle and the available angles on the disc. The number of angles depends on the disc.
- Audio: Indicates the currently selected audio track.
- 8 Subtitles: Indicates the subtitle status.
- 9 Bitrate: Bitrate means the transferring audio data rate of a disc, indicated in Megabits per second.



Display menu for Audio CDs, VCDs and SVCDs

With Audio CDs, Video CDs and SVCDs, the following information is displayed.

- Disc type: Displays the type of disc inserted: DVD, VCD, SVCD, CD-DA.
- 2 Elapsed time: Displays the time of the disc, chapter or track already played.
- Remaining time: Displays how much time remains for the current disc, chapter or track.
- 4 Track: Indicates the current track and the available tracks on the disc.



Display menu for MPEG-4 discs

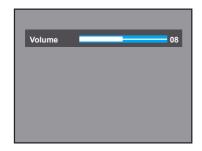
With MPEG-4 discs, the following information is displayed.

- 1 Disc type: Displays the type of disc inserted: DivX.
- 2 Track: Indicates the current track and the available tracks on the disc.
- 3 Elapsed time: Displays the time of the track already played.
- 4 Version: Indicates the MPEG-4 decoding version.
- **5** Remaining time: Displays how much time remains for the current track.
- 6 Resolution: Indicates the resolution of the MPEG-4 content.
- **7** Frame rate: Indicates the frames per second.

MORE AUDIO FUNCTIONS

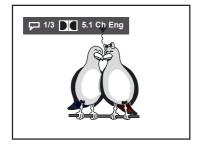
Suspending audio with the "MUTE" button

- To temporarily cancel the audio of the disc you are listening to or watching, simply press the "MUTE" button on your remote control. On the screen will be displayed "Mute on" letting you know that the player is in "Mute" mode, i.e. you will have no sound.
- Press the button "MUTE" again to resume normal playback with sound. On the screen will be displayed "Mute off".



Adjusting volumes

Press the buttons "VOLUME +" and "VOLUME -" on the remote control to adjust the playback volumes of the disc. With the button "VOLUME +" you can increase the volume. With the button "VOLUME -" you can decrease the volume. You may adjust the volume from level 0 to level 16.

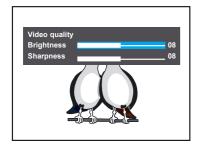


Changing the audio settings

Most DVD discs, some Video CDs and MPEG-4 discs are recorded with multiple audio tracks. These can contain multiple languages and different audio formats. You can change the audio track of the current disc at any point of time.

- You can switch between the various languages and audio modes on DVD discs with the "AUDIO" button on your remote control. On Video CDs and MPEG-4 discs you can only change the audio mode.
- Press the "AUDIO" button while a disc is playing to cycle between the languages and soundtracks available on the disc.
- 3. Playback continues in the new audio track.

MORE VIDEO FUNCTIONS



Changing the video quality

The video quality menu allows you to adjust the picture sharpness and brightness. For adjusting the quality of the picture, proceed in the following way:

- 1. As the disc is playing, press the button "SETUP" on your remote control. On the screen appears the menu shown on the left side.
- 2. Select either Brightness or Sharpness using the direction buttons " \blacktriangle " and " \blacktriangledown "
- Increase or decrease the brightness or sharpness using the direction buttons "◄" and "▶".
- 4. Leave the menu by pressing again the "SETUP" button.

SPECIAL PLAYING FUNCTIONS FOR DVD-VIDEO DISCS

Using the DVD menu

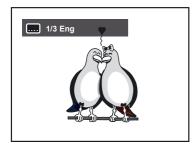
A menu that can be used to select what you want to watch or listen to is provided on many DVDs. There may be, for example, a list of all of the chapters on the disc or a list of extra items that have been provided such as subtitle and audio language selection.

DVD menus will sometimes be displayed automatically when starting playback. Others only appear when pressing the button "MENU" or "TITLE" (depending on the disc's design) on your remote control as the disc is playing. If the disc does not have a menu, the symbol "②" will be displayed on the screen.

Navigate around the menu using the direction buttons and press the button "ENTER" to select the highlighted item. Many DVD menus have multiple layers to navigate through. Exit the menu by following the menu options to resume playback. You can also use the button "RETURN" to return to the last playing position, if you accessed the menu during playback.

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SPECIAL PLAYING FUNCTIONS FOR DVD-VIDEO DISCS



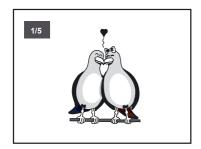
Displaying subtitles

Pre-recorded DVD-Video discs often come with subtitles in several languages. You can change the subtitle language of the current disc or switch off subtitles at any time.

You can change the subtitle language either using the menu of the inserted disc ("MENU" button) or the "SUBTITLE" button on your remote control. The subtitle languages in the menus may differ.

The number of available subtitles depends on the disc. Displaying subtitles can be carried out as described below:

- During playback, press the button "SUBTITLE" on your remote control. A
 message is displayed on the screen indicating the language you have
 selected.
- To change the language that the subtitles are displayed in, press the button "SUBTITLE" again until the required language is displayed. To turn the subtitles off, press the "SUBTITLE" button until "Off" is displayed on the screen.
- 3. Playback continues in the new subtitle language.



Changing the camera angle

If a pre-recorded DVD-Video disc contains sequences recorded from different camera angles, you can change the camera angle for playback. You can choose among the available angles on the disc as described below:

- During playback, press the button "ANGLE" on your remote control. A message is displayed in the top left corner of the screen indicating the angle you have selected, followed by the total number of angles available.
- To change the angle, press "ANGLE" again until the required view is displayed. The number of angles depends on the content of the disc. The screen will interchange to the selected angle after 1-2 seconds.

Note:

Most discs with multi angle support will display an indicator or angle mark that alerts the viewer that multiple angles are available for the current scene.

SPECIAL PLAYING FUNCTIONS FOR VIDEO CD'S

Using playback control (PBC)

On Video CDs, the playback control option can be used to enable a menu similar to the DVD menus. There may be, for example, a list of all chapters on the disc or a list of extra items that have been provided. Not all Video CDs have such a menu.

To enable the playback control option, follow these steps:

- As the disc is playing press the button "MENU" on your remote control until "PBC on" is displayed on the screen. Select the required track using the number keys on your remote control.
- In order to disable the PBC function, please press again the button "MENU" until "PBC off" is displayed on the screen.

Only Video CDs with playback control can use this playing function. Due to the differences in the disc design, the operation method may be different. Please refer to the instructions of each disc.

SPECIAL PLAYING FUNCTIONS FOR PICTURE CD'S



Rotation of a picture

To rotate a picture, press the direction buttons "◀" and "▶" on your remote control after you have selected a JPEG file. In this way, the picture can be rotated horizontally or vertically (90°, 180°, 270° and Original).

<u>For example:</u> To rotate an image in the clockwise direction, press the direction key " ▶" (see figure on the left side).

FNG

CREATING A PLAYLIST

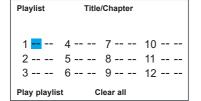
The playlist facility is available to record a list of tracks, pictures, titles and chapters in the order that you want to play them. A playlist can be created by pressing the button "**PROGRAM**" on your remote control and is available for DVDs, Video CDs, MPEG-4 discs, Audio CDs, MP3, JPEG, MPEG and WMA files.

Note:

The playlist will be cleared from memory once a disc is ejected from the DVD player.

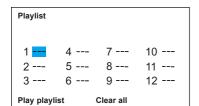
The control of the playlist of DVDs, Video CDs and Audio CDs may be effected by pressing the direction keys. There are 12 possible program locations available. The location numbers indicate the playback order. To delete a programmed sequence, please press the button "C" on your remote control. To start the playing of the programmed sequence, please select "Play playlist" with the direction keys and press "ENTER". To stop the playing of the playlist, please press again the button "PROGRAM" and select "Clear all", followed by "ENTER". Please note that you are not able to program a new sequence while the program is played.

Creating a playlist of DVDs



- Press the button "PROGRAM" on your remote control to display the playlist as shown on the left side.
- Please enter a number by pressing the number keys "0-9" on your remote control to select the title you want to program. To add for example title 2 to the playlist, enter 2. To add title 12, press 12. If your input is invalid, the entered number(s) will be deleted when moving to the next input field.
- Press the direction button "▶" to move to the chapter input field. Please enter now a number to select the chapter of the title you want to program.
- 4. You can now program other titles and chapters in the same way. You may totally program 12 sequences. It is not necessary to fill in all the locations.

Creating a playlist of Video CDs or Audio CDs



- 1. Press the button "**PROGRAM**" on your remote control to display the playlist as shown on the left side.
- 2. Please enter a number by pressing the number keys "0-9" on your remote control to select the track you want to program. To add for example track 2 to the playlist, enter 2. To add track 122, press 122.
- 3. You can now program other tracks in the same way.

CREATING A PLAYLIST



Creating a playlist of MPEG-4 discs, MP3, JPEG, MPEG and WMA files

- Press the button "PROGRAM" on your remote control to enter the playlist mode. "Playlist mode" will appear in the bottom right-hand corner of the on-screen menu.
- Navigate to the MPEG-4, MP3, JPEG, MPEG or WMA file (of the selected folder) that you want to add to your playlist by pressing the direction buttons "▲" and "▼" and press "ENTER" to confirm your selection.

In the example shown on the left side we selected track number 2 "Peace on earth". Next to the field "Playlist" will now appear the message "1: 2". "1" means that this was the first file added to your playlist. "2" means that you selected track number 2.

You can add other MPEG-4, MP3, JPEG, MPEG or WMA files in the same way.

Note:

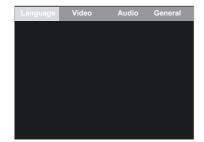
You can also select a file by pressing the corresponding number buttons "0-9" on your remote control.

- Press the button "PROGRAM" again to view the playlist that you have created for playback. "Playlist" will appear in the bottom right-hand corner of the on-screen menu.
- 4. To begin the playback of your playlist, press the Play button "▶".
- To stop the playing of the playlist, please press the Stop button "■" for MPEG-4, MP3, MPEG or WMA files or "MENU" for JPEG files.

ENG

Your DVD player features an on-screen setup menu that allows you to adjust settings for your video and audio preferences, and enable features like parental lock. When you change settings in this menu, they are stored even when power is turned off. If you wish to return to the factory defaults, they can be easily reset in the "General" menu.

Notes for moving in the menu



• The setup menu is divided into the following menus:

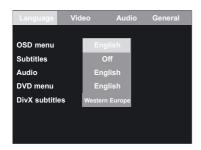
Language settings

Video settings

Audio settings

General settings

- The menu can only be called up in Stop mode. For this press the Stop button "■"
- Press the button "SETUP" on the remote control to display the setup menu. The menu appears.
- By pressing the buttons "◀" and "▶" select the menu that you would like to set and confirm with "ENTER".
- Select the required menu point by pressing the button "▲" or "▼" and confirm with "ENTER".
- Select the desired feature with the button "▲" or "▼".
- To confirm your selection, please press the button "ENTER".
- To leave a submenu press the button "ENTER". To leave one of the main menus (e. g. Language) press the button "A".
- You can leave the menu at any time by pressing the button "SETUP".



Language settings

Highlight the menu point you would like to set in the menu "Language". Press the button "ENTER" to enter a menu. Use the button "▲" or "▼" to select the required language setting and press "ENTER" to confirm your selection.

OSD menu

With this setting you can change the language of the on-screen display menu. You can choose between different languages.

Subtitles¹

With this setting you can change the language of the disc subtitles. If the required language won't be shown in this menu, please select the option "Others" and key in the language code of the required language (refer to the language codes below). If no subtitle display is required, please select "Off".

Audio¹

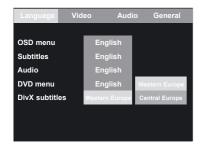
Selection of the desired audio language for playback. If the required language won't be shown in this menu, please select the option "Others" and key in the language code of the required language (refer to the language codes below).

DVD menu¹

Sets the language in which the menus provided on the DVD are displayed (dependent on the disc content). If the required language won't be shown in this menu, please select the option "Others" and key in the language code of the required language (refer to the language codes below).

Language codes								
<u>ت</u>		٦						
6565	Afar	7079	Faeroese	7678	Lingala	8375	Slovak	
6566	Abkhazian	7082	French	7679	Laothian	8376	Slovenian	
6570	Afrikaans	7089	Frisian	7684	Lithuanian	8377	Samoan	
6577	Amharic	7165	Irish	7686	Latvian/Lettish	8378	Shona	
6582	Arabic	7168	Scots/Gaelic	7771	Malagasy	8379	Somali	
6583	Assamese	7176	Galician	7773	Maori	8381	Albanian	
6588	Aymara	7178	Guarani	7775	Macedonian	8382	Serbian	
6590	Azerbaijani	7185	Gujarati	7776	Malayalam	8385	Sundanese	
6665	Bashkir	7265	Hausa	7778	Mongolian	8386	Swedish	
6669	Byelorussian	7273	Hindi	7779	Moldavian	8387	Swahili	
6671	Bulgarian	7282	Croatian	7782	Marathi	8465	Tamil	
6672	Bislama	7285	Hungarian	7783	Malay	8469	Tegulu	
6678	Bengali	7289	Armenian	7784	Maltese	8471	Tajik	
6679	Tibetan	7365	Interlingua	7789	Burmese	8472	Thai	
6682	Breton	7378	Indonesian	7865	Nauru	8473	Tigrinya	
6765	Catalan	7383	Icelandic	7869	Nepali	8475	Turkmen	
6779	Corsican	7384	Italian	7876	Dutch	8476	Tagalog	
6783	Czech	7387	Hebrew	7879	Norwegian	8479	Tonga	
6789	Welsh	7465	Japanese	7982	Oriya	8482	Turkish	
6865	Danish	7473	Yiddish	8065	Punjabi	8484	Tatar	
6869	German	7487	Javanese	8076	Polish	8487	Twi	
6890	Bhutani	7565	Georgian	8083	Pashto/Pushto	8575	Ukrainian	
6976	Greek	7575	Kazakh	8084	Portuguese	8582	Urdu	
6978	English	7576	Greenlandic	8185	Quechua	8590	Uzbek	
6979	Esperanto	7577	Cambodian	8277	Rhaeto-Romance	8673	Vietnamese	
6983	Spanish	7578	Kannada	8279	Romanian	8679	Volapuk	
6984	Estonian	7579	Korean	8285	Russian	8779	Wolof	
6985	Basque	7583	Kashmiri	8365	Kinyarwanda	8872	Xhosa	
7065	Persian	7585	Kurdish	8368	Sanskrit	8979	Yoruba	
7073	Finnish	7589	Kirghiz	8372	Serbo-Croatian	9072	Chinese	
7074	Fiji	7665	Latin	8373	Singhalese	9085	Zulu	

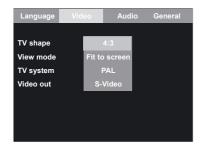
ENG



DivX subtitles

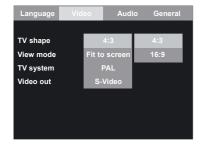
With this setting you can either choose "Western Europe" or "Central Europe" characters for a correct display of the letters when playing a DivX disc and selecting subtitles. For the subtitle display, you have to enable the subtitle feature as described in the menu "Subtitles".

Keep in mind that if the DVD you are using does not support the language you choose, the default of the disc will be used.



Video settings

Highlight the menu point you would like to set in the menu "Video". Press the button "ENTER" to enter a menu. Use the button "▲" or "▼" to select the required picture setting and press "ENTER" to confirm your selection.

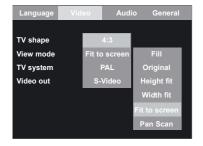


TV shape

You can setup your player to work with normal and wide screen televisions. Select one of the following options:

4:3: If you are using a normal TV, set to the option "4:3".

16:9: If you are using a wide-screen TV, set to the option "16:9" to match the aspect ratio of your TV.



View mode

The video scaling can be applied on MPEG-4, DivX, MPEG, DVD, VCD, SVCD and JPEG. In this menu you can choose between different modes of vertical and horizontal stretching methods. The following modes are defined:

<u>Fill:</u> Fills the screen with the decoded image. There may be distortion when the aspect ratio changes. No image cut nor black bars can be seen.

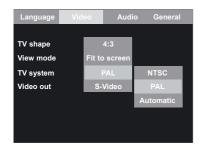
<u>Original:</u> Displays the image as its original size without any scaling. If the image is greater than the active area, a part of the image will be cut. If it is smaller, the background will be displayed. This option is only valid for DivX and MPEG clips. For DVD, VCD and SVCD, "Original" has the same effect as "Fill".

<u>Height fit:</u> Fits the image height with the screen height. The left and right of the image may be cut or there may be presented black bars on the left and right of the screen.

<u>Width fit:</u> Fits the image width with the screen width. The top and bottom of the image may be cut or there may be presented black bars on top and on bottom of the screen.

<u>Fit to screen:</u> Automatically fits the decoded image on the screen without any distortion. There may be black bars on top/bottom or on the left/right of the screen.

<u>Pan Scan:</u> Automatically displays the decoded image on the full screen without any distortion. The left/right or top/bottom of the image will be cut.



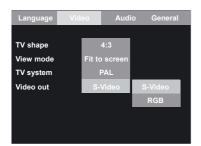
TV system

Your player will work with televisions based on the NTSC and PAL standards, as well as televisions designed to function with both standards, or "Multi" models. Select one of the following options:

NTSC: Television norm in USA, Canada, Japan and many other countries (from 525 lines only 480 lines will be transferred with a picture changing frequency of 60 half pictures per second).

PAL: Television norm in most European countries, Africa and the Middle East (from 625 lines only 576 lines will be transferred with a picture changing frequency of 50 half pictures per second).

Automatic: The DVD will be played in the original format (multinorm TV necessary).



Video out

Change this setting to match the type of video input jack you are using on your TV. Composite video is the most common video connection type and is supported on most TVs. If you connect the player over the composite video output to your TV, normally you don't need to change the output settings, and your TV will get displayed.

<u>S-Video:</u> Picture signal, which is splintered according to colour and brightness. This signal transfer enables a higher sharpness and more low-noise picture compared to composite picture information, which will only be sent over one wire.

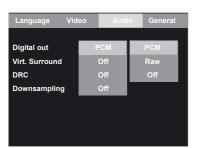
RGB (over Scart): Electrical transmission possibility for video pictures, i.e. it is a picture signal, which is splintered according to the primary colours of the TV (red, green and blue).

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Audio settings

Highlight the menu point you would like to set in the menu "Audio". Press the button "ENTER" to enter a menu. Use the button "▲" or "▼" to select the required sound setting and press "ENTER" to confirm your selection.



Digital out

Used to configure the output format for the digital output (SPDIF out). There are the following selection possibilities:

PCM: PCM (Pulse Code Modulation). The description of the PCM sound of DVDs corresponds to the CD system, but with a higher reading rate (48 kHz, 96 kHz also possible). Alternatively, audio for most films is stored as discrete, multi-channel surround sound using Dolby Digital audio compression similar to the digital surround sound formats used in theatres. Generally, this setting is reserved for two channel equipments.

Raw: Digital Coding of one to six channels (5 plus 1) in a bitstream (Dolby Digital). If you would like to enjoy the effect of DVD 5.1, please select "Raw". Generally, this setting is used with receivers capable of Dolby Digital 5.1 channel decoding.

Off: The digital output can also be disabled with the "Off" setting.

Virtual Surround

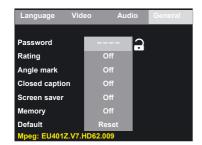
This setting simulates the effect of a 5.1 speaker system by modifying the signal. With help of a phase shifting, the position of the sound in the room will be changed so that you get the feeling that there are more than two speakers in the room. This setting should be switched to "On" with two speaker systems.

DRC

In this menu you can set the dynamic range. It's the difference between the quietest and loudest sounds in an audio signal. By the compression of the range, the quieter sounds are audible and the louder ones are not distorted or too dominant. Big volume jumps will be reduced, if they are annoying - e. g. late in the evening. You can activate or deactivate the compression.

Downsampling

Downsampling of the sampling frequency to 48 kHz. You can switch this option on or off. Select the "On" setting if you are connecting your device over the digital output (SPDIF) and the external equipment (amplifier/decoder) does not support a sampling frequency of 96 kHz.



General settings

Highlight the menu point you would like to set in the menu "General". Press the button "ENTER" to enter a menu. Use the button "▲" or "▼" to select the required setting and press "ENTER" to confirm your selection. In the last line of the General menu the current firmware version of your DVD player is displayed. This may be needed for technical support.

Password & Rating

Your DVD player features a parental control option that can be used to limit playback of DVD discs that exceed the rating you specify. By default, this option is disabled (unlocked). Notice the open lock icon " \supseteq " that indicates the unit is unlocked. In this state, all discs will play regardless of rating. When the parental level is set, DVD discs that are over this level will play only after the correct password has been entered.

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This feature has to be supported by the DVD! However, typically only DVD discs produced by major entertainment companies support parental control. DVD discs not supporting this feature will be "immune" to the lock-out.

Setting the rating level:

To begin using the parental control to limit disc playback, first select a parental level from the available options under "Rating" by pressing the "ENTER" key repeatedly. The lower the rating level number is, the more strict the limitation. The available levels and their equivalent ratings are listed below. If no parental control is required, please select "8. Adults".

- 1. Kid safe: Suitable for all audiences.
- 2. G: Suitable for general audiences.
- 3. PG: Parental guidance suggested.
- 4. PG-13: Parental guidance suggested, unsuitable for children under 13.
- 5. PG-R: Parental guidance recommended implications or very brief discreet language or situations.
- 6. R: Restricted violence, adult language and situation unsuitable for young viewers
- 7. NC-17: Adult theme or content, not suitable for children under 17.
- 8. Adults: Adult themes, language and nudity.

Setting a password:

After you have chosen your desired rating to limit playback, the player must be locked. To lock the player, enter a 4-digit numeric password and write it down in case you forget it. Then press "ENTER". The player will now require that the password is entered before a disc exceeding the specified rating is played.

If you want to change the password at a later date, you have to enter the last stored password at first. Then enter a new 4-digit numeric password.

In order to activate the set password, please leave the setup menu. When pressing again the "SETUP" button, the new password is activated.

Note:

If you have forgotten your password, you can enter the default factory password 3351. Please keep in mind that your player may not be secure if this manual is accessible by your children.

Angle Mark

Here, you can enable or disable the multi-angle display. When used with discs supporting multi-angle features, the current selected angle will be displayed continuously on screen, if you select the "On" setting. Setting the Angle Mark option to "Off" will cancel continuous display, and the current angle will be displayed on-screen for just a few seconds after an angle change. The number of angles depends on the disc.

Closed caption

In this menu you can enable or disable the closed captions feature. These are especially for hearing impaired people. Please note that the DVD has to support this feature. Furthermore, you need a video subtitle decoder.



Screen Saver

In this menu you can enable or disable the screen saver. The screen saver protects your TV's cathode-ray tube from "screen burn" that could result from a static image being displayed for a prolonged period. The screen saver will automatically start within a few minutes of video inactivity, if you select the "On" setting.

Memory

This feature allows you to restart a DVD disc from the last place played at a future time provided the DVD player continues to be in standby mode. If you desire this feature to be enabled, set this option to "On". When set to "Off", DVD discs will always begin playback at the beginning.

Default

If you would like to return all settings of your DVD player's setup menu to the factory defaults, choose "**Default - Reset**". This will reset all language, video, audio and general settings with exception of the parental control and the password. After all, the parental control and the password features would be of little use, if your kids could simply clear them with a reset.

TROUBLESHOOTING

If there is a problem, it does not mean a malfunction. Before sending for repair, please examine your device according to the following:

	please examine your device according to the following:
The DVD player does not power on.	The power cord may be loose or not plugged in. Please make sure that the power cord is secure in the AC socket.
The disc tray cannot be closed.	The disc may not be properly placed. Please place the disc in again.
The remote control does not work.	 Make sure you are aiming the remote control directly at the DVD player's remote control sensor, located on the front of the device. There is a technical problem. Take out the battery from the battery compartment, wait for 10 seconds and re-insert it. Make sure there are no obstacles between the remote control and the device. The battery may be used up. Change the battery in the remote control. You could be using the remote control too far away. Try closer.
No picture.	 Make sure the video cables connecting the DVD player to your TV or receiver are secure. The TV is not set to the DVD/Video mode. Set the TV to the audio/video programme (e.g. AV1 or AV2).
The picture appears stretched or squeezed.	The video aspect ratio may be set wrong for your television type. Enter the OSD menu and select the menu "Video". Change the "TV shape" setting to 4:3 if you are using a standard TV, or change to 16:9 if your TV is a wide-screen type. Do not change the TV shape setting based on the format of a DVD. This setting applies only to the TV's aspect ratio.
No sound from TV or speakers.	The volume is set to minimum. Raise up the volume. Make sure the audio cables connecting the DVD player to your speakers, TV or receiver are properly connected. The movie is paused. There is no sound during pause or search modes. There may be a mistake in the sound settings. Reset to the original settings.
A specific disc does not play.	 You inserted the wrong disc type. The parental control feature is activated. For deactivating the parental control feature please read section "Password & Rating" in chapter "User preferences" (see pages 46-47). The disc may be dirty. Try cleaning the disc. Make sure the disc is placed with the labeled side facing up. The region code of the disc may not match that of the DVD player. In this case, the disc cannot be used. The disc may not be compliant to an industry standard. You have selected or set the wrong channel number on the TV for the DVD player. Select the correct channel number. The cables connecting the TV and the DVD player may be loose. Check the cables.
Subtitles are not shown.	 Press the "SUBTITLE" button on the remote control to switch the subtitles on. The subtitle display is only supported on DVDs.
Flickering black-and-white picture.	Please check if the DVD player is connected to a VCR or a TV/Video-Set. If so, there will be the Macrovision copyright protection. Please directly connect your device to the TV and not to the VCR.

ENG

TROUBLESHOOTING

The setup menu is unavailable.

Ejecting a trapped disc.



- You must completely stop playback by pressing the Stop key before entering the setup menu ("SETUP" button).
- The emergency eject feature allows you to remove a disc from the disc drive in the very rare case that the tray will not open.
- Disconnect the player from the power supply.
- On the bottom of your player you can see one larger oval opening (please see the picture on the left side).
- Push the plastics inside the emergency hole with help of a slim and plane object (e. g. slotted screwdriver) to the left side (about 2 cm; see the arrows in the picture). The tray will then open.
- Remove the disc from the tray. Close the tray again by hand.

SPECIFICATIONS*

General specifications

Playable disc types: DVD-Video, DVD+R, DVD-RW, DVD-RW, Audio CD, CD-R,

CD-RW, VCD, SVCD, MP3 CD, MP3 DVD, Kodak Picture CD, MPEG-4

Playable disc formats: MPEG 1/2, VCD, SVCD, JPEG, MP3, WMA, DivX, XviD

TV systems supported: NTSC, PAL, Multi

Video out formats: CVBS, RGB via SCART, S-Video

Power supply: AC 100~230V, 50/60Hz

Power consumption: 6.4W
Power consumption (standby): 1.9W
Standby LED indicator: On: Green

Standby mode: Red

Dimensions (W x H x D): 226mm × 50mm × 236mm

Weight without packaging approx.: 1.425 kg Operation status: Horizontal

Operation conditions: 5°C to 35°C (41°F to 95°F)

Laser: Semiconductor laser, wavelength 650nm and 790nm

Audio/Video connections

AV connector SCART: (R) 0.7V (75 ohm), (G) 0.7V (75 ohm), (B) 0.7V (75 ohm),

(H/V sync.) 1.0Vpp (75 ohm)

S-Video out: Mini DIN 4-pin, (Y) 1.0Vpp (75 ohm), (C) 880mVpp (75 ohm)

Composite video out:

One pin jack, 1Vpp (75 ohm)

Analogue audio out:

Two pin jacks, 1.0Vrms

Coaxial digital audio out: One pin jack, 0.5Vpp (75 ohm); (SPDIF) IEC 958 for CD-DA/LPCM, IEC

1937 for MPEG 1/2, Dolby Digital

Digital audio features

Signal-to-noise ratio:

Audio dynamic range:

D/A converter: 96KHz / 24 bit

 Frequency response:
 DVD (48kHz): 20Hz to 20kHz

 CD (44.1kHz): 4Hz to 20kHz

>86.5dB (200kHz/20 bit) >86.3dB (200kHz/20 bit)

Harmonic distortion: <0.015%

ENG

^{*}Designs and specifications are subject to change without notice. All of the company or product names mentioned in this manual are the trademarks or registered trademarks of their respective holders.

GLOSSARY

Bit Smallest information unit in the EDV as well as in digital transmission systems.

Indication for the height of the resolution in the uncompressed PCM size.

CD-R & CD-RW Recordable optical disc formats that can be used as Video CD or MP3 with your

DVD player.

Cinch-Audio Through the Cinch sockets, the Dolby Digital or MPEG sound will be released

from the DVD as analogue two-channel signal - independent from the channel

number on the DVD.

Cinch-Video The DVD player sends the composite video signal through the yellow Cinch

socket, either directly to the corresponding socket on the TV or indirectly through an AV receiver. Cinch is the qualitatively worst picture connection and

should only be used if there is no other option.

Composite video The most common connection for coloured video pictures that uses a single

RCA cable.

Digital output

The DVD player releases its sound information bit by bit through the digital out-

put. The way the sound will stream out of the socket must be adjusted in the OSD menu. Most important criteria: Which device is connected to the digital

socket?

DivX The DivX codec is an MPEG-4 based video compression technology, developed

by DivXNetworks, Inc. It can shrink digital video to small sizes while maintaining

high visual quality.

Dolby Digital A digital surround sound system which is able to transfer up to 5 sound chan-

nels plus a sub-bass channel (5.1 or 3/2.01). Developed by Dolby Laboratories.

dts (not supported)

Digital Theatre System. Digital sound system, which works with 5.1 channels

and corresponds to Dolby Digital on the first view. It differs regarding the data reduction. The dts system works with higher data rates, i.e lower data reduction. It transfers about 4 times as much data as the Dolby Digital or MPEG 2 process

and therefore needs appreciable more storage space on the DVD.

Dual-Layer DVD A DVD disc that has two layers on a side. A single-sided, dual-layered DVD can

hold almost four hours of video and audio, and is also known as a DVD-9.

DVD Digital Versatile Disc is a storage medium that combines the convenience of the

compact disc with the latest digital video technology. DVD-Video uses modern MPEG 2 data compression technology that enables an entire film to be stored on a single five inch disc. DVDs come in different formats, such as single-sided

or double-sided. Each side can have a single layer or two layers of data.

DVD-5 A DVD that is single-sided, single-layered, holding up to 4.7 GBytes of data.

DVD-9 A DVD that is single-sided, dual-layered, holding up to 8.5 GBytes of data.

DVD-10 A DVD that is double-sided and single-layered, which holds up to 9.4 GBytes of

data. This disc must be manually flipped to use both sides.

DVD-18 A DVD that is double-sided, dual-layered, holding up to 17 GBytes of data.

GLOSSARY

DVD+RW DVD+ReWritable uses phase change media, the same technology on which

rewritable CDs are based. A high-performance laser is used to change the reflective properties of the recording layer; this process can be repeated more

than thousand times.

DVD+R DVD+R (write-once DVD). Unlike a DVD+RW disc, the disc can only be written

to once. If it is not finalised after a recording, further recordings can be added to it in a DVD recorder. Old recordings can be deleted but can no longer be overwritten. Before this disc can be played in a DVD player, it must be finalised in a DVD recorder. Once this process is completed, no further recordings can be

added

JPEG Joint Photografic Expert Group. File format for pictures with high compression

degree

KHz Kilohertz. KHz is the indication for the height of the scanning rate with which an

analogue signal (PCM) is interrogated for the following analogue/digital trans-

formation.

Macrovision Analogue copy protection which scrambles the video signal when used with

VHS recorders. Also has an effect on some projectors and monitors.

MP3 A compressed audio format. MP3 files recorded on CD-R or CD-RW media are

suitable for playback on your DVD player.

MPEG Moving Picture Experts Group. Compression method that is used for digital

video records, e.g. for Video CDs or CDs.

MPEG-4 Latest compression method standardized by MPEG group with greater com-

pression capabilities.

NTSC National Television System Committee, television norm among others in the

USA and Japan (from 525 lines only 480 lines will be transferred with a picture

changing frequency of 60 half pictures per second).

Optical digital audio connector

A digital audio connection used to connect a DVD player to a receiver or pre-

amplifier. Transfers a "RAW" digital audio signal, minimizes signal degradation.

PAL Phase Alternation Line, television norm in Germany and other European coun-

tries (from 625 lines only 576 lines will be transferred with a picture changing

frequency of 50 half pictures per second).

Pan & Scan When used with a normal TV (4:3 aspect ratio), this setting results in the typical

"Pan & Scan" display, where a movie is clipped on the sides to fit on the TV

screen.

PCM Pulse Code Modulation. Linear data stream, which arises from the scanning of

an analogue signal in the same intervals.

Region code DVD movies are produced with region encoding to restrict distribution of titles to

certain areas at certain times. To play back a DVD title with a specific region

code, you will need a DVD player with the same region code.

RGB Electrical transmission possibility for video pictures, i.e. it is a picture signal,

which is splintered according to the primary colours of the TV (red, green and

blue).

GLOSSARY

SCART socket The SCART socket is the simplest connection between your DVD player and

your TV. It transports not only the picture signals, but also the sound signals.

S-Video S-Video offers significantly improved video signal performance through a basic

composite video connection. To use this type of connection, your TV must have

an S-Video input.

SVCD Super Video CD is a further development of the Video CD. It uses MPEG 2

video compression with a higher and variable data rate.

VCD Video CD. A digital video disc format that uses MPEG 1 video compression. The

picture quality is roughly that of VHS tapes.

Widescreen Transmission of a wide-screen film on video with black bars on top and on bot-

tom.

WMA Windows Media Audio is a streaming media format from Microsoft.